

Claims

1. A method of dataconferencing between two or more sites at which a shared voice call network and a shared data network are both accessible, each of the sites including a display device, comprising:

at each of the sites, providing a telephone receiver and a dataconference control unit coupled to the voice call network, and providing a network interface coupled to the data network, the dataconference control unit at each site being coupled to the display device and the network interface at said site;

providing an image source for producing image data representative of an image, the image source coupled to one of the network interfaces;

establishing a voice call session between the telephone receivers of the sites over the voice call network for transmission of voice communications therebetween;

at the dataconference control unit of a first one of the sites, obtaining a network device access code and transmitting the network device access code within the voice call session;

at the dataconference control unit of at least a second one of the sites, receiving the network device access code transmitted from the first site;

in response to receiving the network device access code at the second site, establishing a data communication session between the sites via the data network using the network device access code;

transmitting the image data between the sites via the data network; and displaying the image at the sites via the display devices.

2. The method of claim 1 in which transmission of the network device access code within the voice call session interrupts the transmission of the voice communications, and further comprising:

after transmitting the network address within the voice call session, resuming the transmission of the voice communications between the sites without terminating the voice call session.

3. The method of claim 1 in which the transmitting of the network device access code within the voice call session includes generating and transmitting an electronically generated audio signal representative of the network device access code.

4. The method of claim 3 in which the electronically generated audio signal includes a series of DTMF tones.

5. The method of claim 1 in which:

at least one of the dataconference control units includes an input key; and the steps of obtaining the network device access code and transmitting the network device access code within the voice call session on the voice call network are implemented in a negotiation procedure that is initiated by manually activating the input key.

6. The method of claim 5 in which:

the network procedure further implements the steps of receiving the network device access code and establishing data communication between the sites via the data network; each of two or more of the dataconference control units includes an input key; and the input keys of each of the dataconference control units are manually activated to complete the negotiation procedure.

7. The method of claim 5 in which the input key includes a pushbutton.

8. The method of claim 1 in which the network device access code includes an IP address of the network interface of the first site.

9. The method of claim 8 in which the network interface of the second site has a second IP address, and further comprising:

in response to the receipt of the network device access code at the second site, transmitting to the first site the second IP address within the voice call session.

10. The method of claim 1 in which:

the network device access code includes a multicast group address identifying a multicast session; and

the establishing of the data communication session between the sites includes, at each of the sites, joining the multicast session using the multicast group address.

11. The method of claim 1, further comprising:

providing an Internet conference server ("ICS") accessible via the data network at an IP address; and

in which the network device access code transmitted from the first site to the second site includes the IP address of the ICS.

12. The method of claim 1, further comprising:

providing an Internet conference server ("ICS") accessible via the data network;
at the first dataconference control unit, acquiring a passcode from the ICS via the data network and transmitting the passcode to the second site within the voice call session, the passcode being associated with one or more conference sessions within the ICS adapted to receive and retransmit the image data via the data network; and

in which the establishing of the data communication session between the sites via the data network includes, at each site, transmitting the passcode to the ICS via the data network to gain access to at least one of the conference sessions on the ICS.

13. The method of claim 1, further comprising exchanging encryption codes between the dataconference control units for securing the data communications session.

14. The method of claim 1 in which:

one of the telephone receivers is capable of receiving or transmitting voice calls using voice-over-IP ("VoIP") protocol; and

the establishing of the voice call session between the telephone receivers includes establishing a voice-over-IP call segment.

15. The method of claim 1 in which:

the providing of the image source includes providing multiple image sources for generating multiple sets of image data representing a plurality of images, the image sources being coupled to one or more of the network interfaces;

the transmitting of the image data between the sites via the data network includes transmitting the sets of image data; and

the displaying of the image at the sites via the display devices includes displaying the plurality of images at each of the sites.

16. The method of claim 1, further comprising:

at a sending one of the sites, compressing the image data before the transmission of the image between the sites to thereby generate a compressed image data set, the transmitting of the image data via the data network includes transmitting the compressed image data set; and

at the dataconference control unit of each site other than the sending site, receiving the compressed image data and decompressing the compressed image data set before the displaying of the image.

17. The method of claim 1 in which the display device at each site has a pixel resolution, and further comprising:

scaling and resizing the image data at each site before the displaying of the image to thereby adjust the image to fit the pixel resolution of the display device.

18. The method of claim 1 in which the dataconference control unit, the network interface, and the display device at one or more of the sites are integrated in a computer workstation.

19. The method of claim 18 in which the computer workstation includes the image source.

20. A system operating in accordance with the method of claim 1.